

REMARKS

The Office Action, dated October 31, 2007, has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Following the current amendment, claims 1-23 and 41-54, including independent claims 1, 14, 41, 45, and 49-54, are currently pending in the application. In particular, claims 1, 4, 14, and 41-54 have been amended to more particularly point out and distinctly claim the invention. It is respectfully submitted that the amendments add no new subject matter to the present application and serve only to place the present application in better condition for examination. Entry of the amendments and reconsideration of the rejected pending claims are respectfully requested. It is believed that all grounds for rejection in the Office Action have been addressed and that the present application is currently in condition for allowance in view of the amendments and the following remarks.

Claims 1-3, 5-11, 13-16, 18-23, 41, 43, 45, and 47-54 are rejected under 35 U.S.C. §103(a) as being anticipated by U.S. Patent No. 6,992,995 (Agrawal) in view of U.S. Patent No. 6,064,887 (Kallioniemi). In particular, the Office Action alleges that Agrawal discloses most of the recited elements of these claims, but conceded that Agrawal does not disclose or suggest a solution in which a global address is not known to a mobile entity. To address this deficiency, the Office Action cites to Kallioniemi as allegedly disclosing this claim element. Applicants respectfully urge that the combination of Agrawal and Kallioniemi fails to teach or suggest every recited limitation of independent

claims 1 and 14 and new independent claims 41, 45, and 49 through 54, and therefore, fails to expressly teach every recited limitation of claims 1-3, 5-11, 13-16, 18-23, 41, 43, 45, and 47-54, as described in greater detail below. Applicants further urge that the combination of Agrawal and Kallioniemi is legally improper. Accordingly, reconsideration and allowance of these claims are respectfully requested in view of the following comments.

Independent claim 1, from which claims 2-13 depend, relates to a method, including sending a message including information for identifying a first network access entity from a mobile entity to a second network access entity, wherein a global address of the first network access entity is not known to the mobile entity. The message is configured to enable a connection of the mobile entity to be handed over from the first network access entity to the second network access entity, and wherein the message is configured to enable the second network entity to direct traffic destined to the first network entity.

Independent claim 14, from which claims 15-23 depend, recites a method that includes forming a message for handing over a connection of a mobile entity from a first network access entity to a second network access entity, wherein a global address of the second network access entity is not known to the mobile entity. The method further includes sending the message with information for identifying the second network access entity from the mobile entity to the first network access entity. The message therefore enables the first network access entity to direct traffic to the second network access entity.

Independent claim 41, from which claims 42-43 depend, relates to an apparatus, configured to send a message including information for identifying a first network access entity to a second network access entity which enables the second network access entity to direct traffic to the first network access entity. A global address of the first network access entity is not known to the apparatus.

Independent claim 45, from which claims 46-48 depend, recites an apparatus, configured to send a message including information for identifying a second network access entity to a first network access entity, which enables the first network access entity to direct traffic to the second network access entity. Again, a global address of the second network access entity is not known to the apparatus.

Independent claim 49 relates to a computer program embodied on a computer readable medium, the computer readable medium storing computer executable instructions configured to control a processor to perform a method. The method includes forming a message which enables a second network entity to direct traffic destined to a first network entity. In this step, a global address of the first network access entity is not known to a mobile entity. The message is then sent and includes information for identifying the first network access entity from the mobile entity to the second network access entity.

Independent claim 50 relates to a computer program embodied on a computer readable medium. The computer readable medium stores computer executable instructions configured to control a processor to perform a method. This method includes forming a message which enables a first network entity to direct traffic destined to a

second network entity, wherein a global address of the first network access entity is not known to a mobile entity. The sent message includes information for identifying the second network access entity from the mobile entity to the first network access entity.

Independent claim 51 relates to first network access entity that is configured to receive a message from a mobile entity. The message includes information for identifying a second network access entity to the first network access entity, wherein a global address of the second network access entity is not known to the mobile entity. This entity is further configured to use the message to direct traffic to the second network access entity.

Independent claim 52 relates to an apparatus that includes forming means for forming a message including information for identifying the first network access entity to the second network access entity which enables the second network access entity to direct traffic to the first network access entity, wherein a global address of the first network access entity is not known to the apparatus. The apparatus further includes sending means for sending the message.

Independent claim 53 relates to an apparatus. The recited apparatus includes a forming means for forming a message including information for identifying a second network access entity to a first network access entity, which enables the first network access entity to direct traffic to the second network access entity. In particular, a global address of the second network access entity is not known to the apparatus. The apparatus further includes a sending means for sending the message.

Independent claim 54 relates to first network access entity. The first network access entity includes receiving means for receiving a message from a mobile entity, the message including information for identifying a second network access entity to the first network access entity, wherein a global address of the second network access entity is not known to the mobile entity. The first network access entity further includes traffic directing means for using the message to direct traffic to the second network access entity.

Applicants have carefully reviewed the combination of Agrawal and Kallioniemi and respectfully urge that the combination neither teaches nor suggests all of the recited features in any of the presently pending claims.

Agrawal generally relates to facilitating intra-domain mobility. In Agrawal, a first network or domain includes a home agent or SIP proxy of a mobile node. A second network in Agrawal includes two or more subnetworks and at least one mobility agent (MA), and each subnetwork includes an associated subnet agent. To communicate in Agrawal, the mobile node first registers with a subnet agent, receives a local care-of-address and a global care-of-address, and then registers with an MA. The mobile node may then provide the global care-of-address to the home agent. The local care-of-address may enable communication with the mobile node without determining a specific route to the mobile node. The global care-of-address received from the subnet agent may include the address of the MA. Accordingly, the mobile node may transition from any of the subnetworks to another subnetwork without communicating to the home agent

information about the transition and without communicating to the MA information about a security association between the mobile node and the home agent.

According to this and other disclosure in Agrawal, the reference discloses methods and systems for facilitating intra-domain mobility. For example, as described in Agrawal in Figure 2 and also described in the abstract, and in col. 8, ll. 52 to 62, a network system 200 comprising a home network 210, a correspondent network 220 and a foreign network 240 are described. The foreign network 240 comprises a plurality of subnetworks 250, 260. In the passage in column 8, lines 39 to 51, handovers also are described wherein Agrawal distinguishes between handovers between different cells than the same subnetwork and handovers between two different domains or networks. For example, the passages cited in the Office Action at lines 60 to 67 of col. 1, lines 9 to 13 of col. 7, and lines 39 to 51 of col. 8 describe intra-domain handovers.

In contrast, claim 1 recites, for example, sending a message including information for identifying a first network access entity from a mobile entity to a second network access entity, wherein a global address of the first network access entity is not known to the mobile entity. The message is configured to enable a connection of the mobile entity to be handed over from the first network access entity to the second network access entity, and wherein the message is configured to enable the second network entity to direct traffic destined to the first network entity. Therefore, the passages of Agrawal identified in the Office Action do not teach or suggest elements corresponding to the first and second network access entities recited in independent claim 1. For at least this reason, Agrawal does not teach every recited limitation of claim 1.

Continuing with claim 1, Applicants further note that an object of various recited embodiments of the present application is to provide mobility support even in case the global address of one or even both of the participating network access entities is not known to a mobile entity. For example, claim 1 recites that a global address of the first network access entity is not known to the mobile entity. As conceded in the Office Action, Agrawal does not disclose this limitation. In fact, Agrawal teaches away from this limitation. For example, as described in Agrawal in its abstract, at lines 6 to 8, a mobile node first registers with so-called subnet agent of each subnetwork (within the network 240). From this subnet agent, the mobile node receives a local care-of-address and a global care-of-address, thereby enabling the mobile node to register with a mobility agent (MA). Since the mobile node first registers with the subnet agent, only this element could correspond to the recited network access entities of claim 1 (not admitted), even though this connection appears to be convoluted, at best. For at least this reason, Agrawal does not teach at least this recitation of claim 1.

Moreover, Applicants note that Agrawal does not teach or suggested the recited limitation from claim 1 that the mobile entities send information for identifying one of the network access entities to the other network access entity. Regarding this recitation, Applicants have reviewed the passages of Agrawal referenced in the Office Action and urge that they do not relate to the recitations of claim 1. Instead, the passages referenced in the Office Action only describe that a care-of-address of the particular mobile node is not known.

Agrawal may describe some inter-domain handover. However, Agrawal does not even suggest the problem that the global address of one of the access network entities involved is not known to the mobile station. Therefore, Agrawal cannot suggest the solution as defined in the independent claims. Moreover, since Agrawal does not indicate the problem, a person skilled in the art would not ever refer to this document when looking for a solution underlying the present application. For at least this reason, Agrawal also does not teach at least this other recitation of claim 1.

The Office Action alleged that Kallioniemi discloses at least the recitation from claim 1 that the global network address is not known to the mobile entity. In particular, Kallioniemi discloses a telecommunications network with portability of a mobile subscriber number. As derivable from the abstract, for example, this document is directed to global reachability of a mobile subscriber. In particular, a mobile subscriber number portability database is provided, and this database stores the address of the gateway node by which a called mobile subscriber is served. Changes of the service providers are reflected in this database. Hence, at least the general problem underlying this Kallioniemi seems to be completely different from the problems addressed in various recited embodiments of the present application.

With respect to the independent claim 1, the Office Action cited a passage of Kallioniemi at column 17, lines 5 to 55, and Fig. 8. This portion of Kallioniemi describes how a fixed subscriber sub-A sets up a call to a subscriber sub-B which is served by another service provider. This passage does not even mention a handover or the like. In particular, it is described only in detail how the current location of the called subscriber

sub-B is determined, *e.g.*, the actions 8-3, 8-4. Similarly, in column 17, lines 33 to 40, a so-called Global Title (which seems to correspond to a global address) is mentioned, but this is used for addressing the HLR. In particular, in action 8-11, the GMSC calls the HLR(1), obviously by using the GT.

Thus, Kallioniemi does not teach or suggest a network configuration in which the global address is not known to the mobile entity. More specifically, this feature, as defined in claim 1, clearly describes that a global address of one of the network access entities involved is not known to the mobile station. This limitation is not described in Kallioniemi since, as described above, Kallioniemi does not even describe problems regarding a handover in case such a global address of a network access entity is not known to a mobile station.

Moreover, Kallioniemi does not address the other deficiencies described-above for Agrawal. In particular, as described above, Agrawal also does not teach or suggest the recited first and second network access entities. Furthermore, Agrawal does not suggest forming a message to enable a connection of the mobile entity to be handed over from the first network access entity to the second network access entity, or that the message is configured to enable the second network entity to direct traffic destined to the first network entity. Kallioniemi certain does not perform these functions, and therefore, would not address these deficiencies in Agrawal.

For at least these reasons, the rejection of claim 1 under 35 U.S.C. §103(a) in view of Agrawal and Kallioniemi is technically improper since the combination of references fails to teach or suggest each and every claim recitation.

Under similar grounds, Applicants therefore urge that the rejection of claim 14, 41, 45, and 49 through 54 are similarly allowable because these independent claims include similar claim features as those recited in independent claim 1, although of different scope, and because the Office Action refers to similar portions of the cited references to reject the other independent claims. Applicants likewise believe that claims 2-13, 15-24, 42-44, and 46-48 should likewise be allowable for at least the reason of as depending from allowable independent claims for at least the reason presented above. It is therefore urged that this ground for rejection is traversed. Reconsideration and allowance of claims 1-23 and 41-54 are therefore respectfully requested in these grounds.

Furthermore, Applicants urge that it is legally incorrect to combine Agrawal and Kallioniemi under 35 U.S.C. §103(a). According to the Office Action at the last paragraph of page 3, Agrawal and Kallioniemi should be combined to provide “seamless inter-network connectivity for mobile communications units.” However, as described above, neither of Agrawal and Kallioniemi addresses this problem listed in the Office Action as the motivation to combine the references.

In particular, Agrawal may describe some inter-domain handover, but does not even suggest the problem that the global address of one of the access network entities involved is not known to the mobile station. Therefore, Agrawal cannot suggest the solution as defined in the independent claims of providing seamless inter-network connectivity for mobile communications units. Moreover, since Agrawal does not even indicate the problem, a person skilled in the art would not even refer to this document when looking for a solution underlying the present application.

Similarly, as described above, a person skilled in the art cannot get any suggestions leading him to a solution to the problem underlying the present application from Kallioniemi. Instead, as described above, Kallioniemi is directed to how a first fixed subscriber can set up a call to a subscriber who is served by another service provider. Since the basic problem of the present application and used by the Office Action for justifying the combination of Agrawal and Kallioniemi is not even described or suggested in Kallioniemi, a person of ordinary skill would also not even refer to this reference.

Likewise, a combination of both Agrawal and Kallioniemi cannot suggest the subject-matter of the independent claims. As described above, although Kallioniemi may arguably describe that for some network element a global address of another network element is not known (not admitted), this action is completely unrelated to handover and does not, in particular, refer to network access entities. Similarly, while Agrawal may disclose an intra-domain handover (again, not admitted), the global addresses of the network access entities are known. Thus, when starting from Agrawal, there does not appear to be any reason why a person skilled in the art should refer to Kallioniemi, since this document does not teach anything which actually contributes to a solution underlying the present application.

For at least these reasons, the rejection of claims 1-3, 5-11, 13-16, 18-23, 41, 43, 45, and 47-54 under 35 U.S.C. §103(a) in view of Agrawal and Kallioniemi is legally improper because the Office Action has not provided a proper legal basis for combining

Agrawal and Kallioniemi. Reconsideration and allowance of claims 1-3, 5-11, 13-16, 18-23, 41, 43, 45, and 47-54 are therefore respectfully requested in these grounds.

The Office Action rejects claims 12, 17, 44, and 46 under 35 U.S.C. §103(a) as being allegedly unpatentable over Agrawal and Kallioniemi in view of U.S. Published Patent Application No. 20030086425 (Bearden). In particular, the Office Action conceded that the combination of Agrawal and Kallioniemi does not teach or suggest the monitoring or identifying of network elements, but cited to Bearden to allegedly cure this deficiency. Applicants respectfully urge that this ground for rejection is traversed because the combination of Agrawal, Kallioniemi, and Bearden fails to expressly teach every recited limitation of independent claims 1, 14, 41, 45, and 49 through 54, and therefore, fails to expressly teach every recited limitation of claims 12, 17, 44, and 46 since the dependent claims include all of the limitations of the base independent claims.

As described in its abstract, Bearden generally relates to a system for monitoring traffic on a network that first discovers the network so as to map the various devices and links in the network. Statistics are then gathered from various points in the network relating to quality of service, and especially loads on the network devices. Synthetic calls are generated at selected points of the network while monitoring the network. This data is then stored and displayed in a manner that is easy for the operator to analyze, with more detailed displays being available through the use of a mouse or keystrokes.

Accordingly, Bearden generally relates to a system for monitoring traffic on a network, wherein several parameters regarding quality of service and the like can be monitored. In this way, it can be seen that Bearden does not address the above-described

deficiencies in Agrawal and Kallioniemi. Similarly, Bearden is silent regarding the technical problems and advantages underlying the present application. For example, Bearden does not address the recitation from claim 1 that mobile entities send information for identifying one of the network access entities to the other network access entity. Consequently, independent claims 1, 14, 41, 45, and 49-54 are allowable over the combination of Agrawal, Kallioniemi, and Bearden, and claims 12, 17, 44, and 46 are allowable as depending from allowable claims.

Moreover, claims 12, 17, 44 and 46 should be separately allowable because Bearden fails to teach or suggest the recited limitations contained therein. Specifically, the monitoring of the network according to Bearden is performed in order to improve the quality of service, but there is no suggestion that this could be used in order to identify the first or second network access entity as recited in 12, 17, 44 and 46. It is therefore urged that this ground for rejection is traversed.

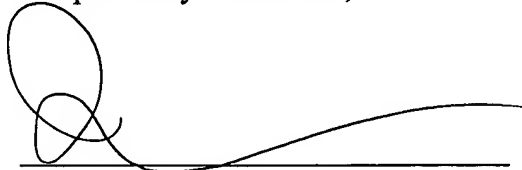
As discussed above, each of the pending claims 1-23 and 41-54 recites subject matter which is neither disclosed nor suggested in the cited prior art. Applicants submit that the recited subject matter is more than sufficient to render the recited embodiments of the present invention non-obvious to a person of ordinary skill in the technical art of telecommunications. It is respectfully requested that independent claims 1, 14, 41, 45, and 49-54 and the related dependent claims be allowed to pass to issue in view of the above arguments, comments, and remarks.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by

telephone, the applicants' undersigned representative at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

A handwritten signature in black ink, consisting of a large loop followed by a horizontal line that extends to the right.

David D. Nelson
Registration No. 47,818

Customer No. 32294
SQUIRE, SANDERS & DEMPSEY LLP
14TH Floor
8000 Towers Crescent Drive
Tysons Corner, Virginia 22182-2700
Telephone: 703-720-7800
Fax: 703-720-7802

DDN/cqc